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Au cours des soixante dernières années, la bibliothèque du ministère de l'Agriculture a utilisé diverses techniques de bibliothéconomie pour fournir aux intéressés, savants, scientifiques et chercheurs, des renseignements scientifiques dont ils ont besoin. L'une des plus récentes est le service canadien de dissémination sélective d'informations appelé communément CAN/D-SI.

Those who think of a library as a building nestled drowsily in a landscape of shrubbery are surprised to find that it can be affected by events around the world. It is true that libraries preserve the records and historical documents that lend perspective to the present. That goes without saying. But who would ever think that when designers alter hemlines, library telephones ring with questions on how minis or maxis will relate to world conditions, the possible effects on the textile industry and on wages of factory workers ...

It is not surprising, then, that a library situated in the nation's capital and serving a substantial part of the nation's research needs for 60 years, should feel the impact of changes around the world affecting the parent industry of the country—agriculture.

"This year marks the Diamond Anniversary of the Canada Department of Agriculture (CDA) Library," says Mrs. Peggy Reynolds, Chief Librarian.

"Few people realize that the modern library relates to the national and international scene. The resources of our library are drawn on internationally by scholars, scientists and other researchers representing a wide range of disciplines", she says.

In 60 years the CDA Library service has developed from the humble beginnings of a small office collection and a staff of one in 1910 to a network of libraries spanning the nation from coast to coast and serving the needs of Canada's agricultural community as a

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# CDA LIBRARY

## SERVING NATION'S RESEARCH

*The CDA headquarters library is located in the Sir John Carling Building, Ottawa.*

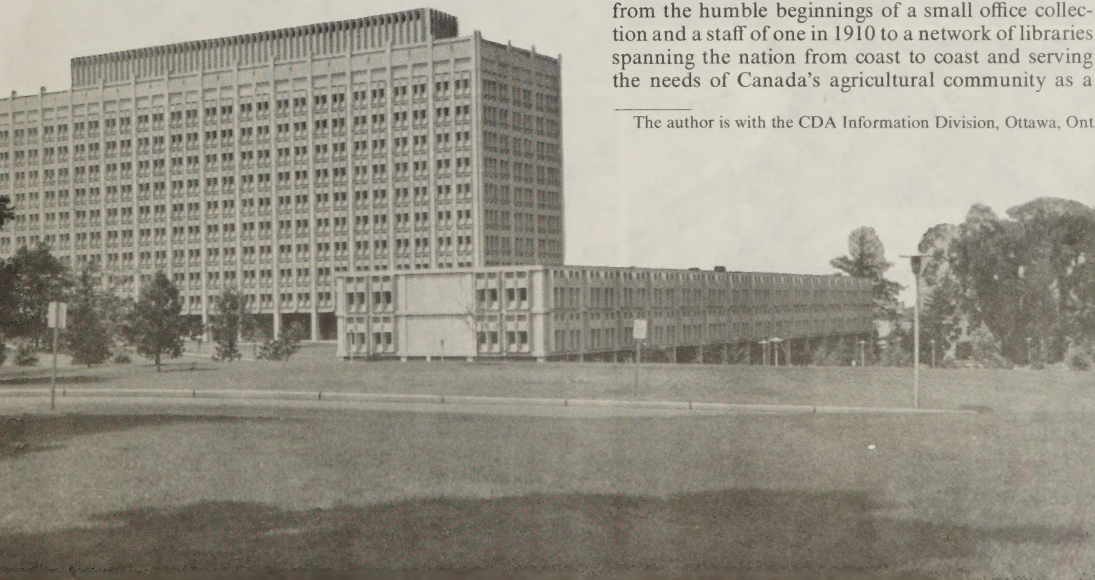




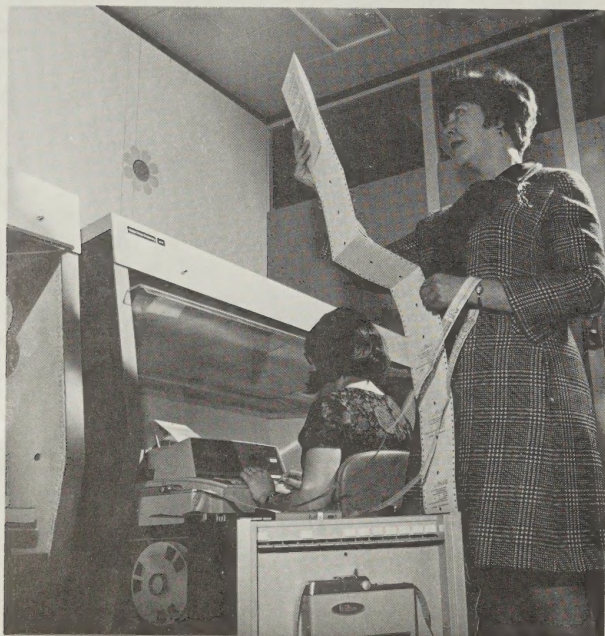
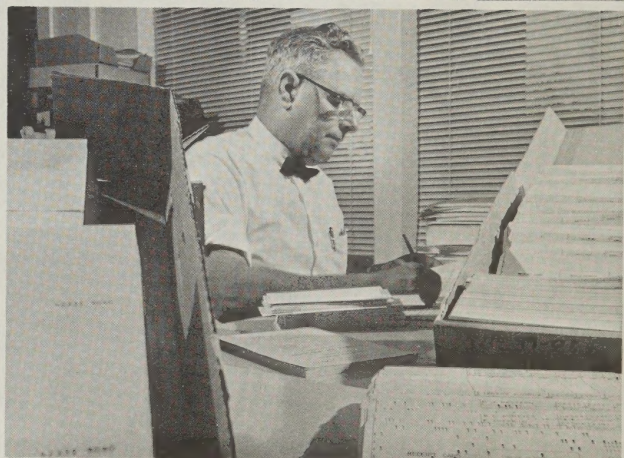
Fig. 1. A librarian at headquarters scans a completed set of catalog cards made from paper tapes on automatic typewriters.

Fig. 2 A SDI print-out directs a scientist to key information in his field of interest. SDI is a computerized library service being used increasingly by scientists in the Canada Department of Agriculture.

Fig. 3 A cataloging clerk at the main library makes copies of entries from Library of Congress printed catalogue - to send to correct cataloguing information to a branch library.

Fig. 4 A member of headquarters library staff working on automatic circulation of periodicals which are sent to CDA personnel across Canada. He is preparing data processing forms in anticipation of upcoming journals that will be received by the library.

Fig. 5 Even Friday afternoon can be busy in the branch libraries, as witnessed at the CDA Research Station library in Winnipeg. The Winnipeg library is one of 23 branch libraries serving the regional needs of Canada's diverse agricultural community.





whole. Today there is a staff of over 100, half of which is at the headquarters library located in the new Sir John Carling Building on the Central Experimental Farm in Ottawa. There are about 350,000 volumes in the main library with another 10,000 to 15,000 in each of the 21 branch libraries. The branch and field libraries co-operate with university and provincial networks by providing special services such as a computerized grasshopper index in Saskatoon and coordinate indexing services in Vancouver and Winnipeg.

No matter where CDA staff are located the library serves them in their work. This encompasses about 11,000 people in various occupations such as research scientists in many disciplines, economists, statisticians, veterinarians, inspectors, editors, technicians, home economists and so on.

The library has amassed one of the foremost collections in agriculture and allied sciences—botany, chemistry, animal husbandry, entomology, veterinary medicine, biology, agricultural engineering, rural sociology, food and nutrition, soils and fertilizers, and the marketing, transportation and other economic aspects of agricultural production. In the main library there are several special collections including depository publications of the Food and Agriculture Organization, the United States Department of Agriculture and State Experimental Stations and the Commonwealth Agricultural Bureaux.

### THE INFORMATION EXPLOSION

Of great impact on the library has been the information explosion of the past two decades. The rate of increase of information generated has become so great that a young scientist starting out now and looking back at the end of his career will find that 80 to 90 per cent of all scientific achievement will have taken place before his very eyes, and that only 10 to 20 per cent of scientific discovery will antedate his experience. An equally compelling observation is one made by Simon Pasternak in *Physics Today* (Vol. 19, No. 38). He finds that, in three fields closely related to modern agriculture—biology, chemistry and engineering it will require studying 1,000 articles a day just to keep up with developments in a specialized field. The day of the general scientist has ended. But the day of providing accessibility to this volume of information has just begun.

The CDA Library recognized this trend and pressed for modernization of traditional library techniques as early as the 1950's. In 1954 automation of services was started when circulation control of current periodicals and Departmental subscriptions to periodicals were converted to punched cards. They have since been fully computerized. In the process of being computerized are some 30,000 journal and other serial titles—a mammoth undertaking.

One of the latest developments in computerized

library services is a system known as Selective Dissemination of Information or simply SDI. Mrs. Reynolds says that all libraries have access to SDI tapes provided through the Canadian or CAN/SDI project of the National Science Library, National Research Council.

In the Department of Agriculture SDI is used mainly by research scientists. One user discussed his experience in using the system since it was introduced earlier this year. Dr. C. Madhosingh, a biochemist with the Cell Biology Research Institute in Ottawa finds that the system helps him in his specialized field of interest—tyrosinase isoenzymes in plant pathogenic fungi.

"Research," he says, "is a frontier area in science and the prompt communication of knowledge is vital. Rapid communication not only eliminates any possibility of repetition of similar work but increases national and international efficiency in research.

"SDI not only provides information quickly it also provides, selectively and analytically, a search for relatively specific information from an increasingly large volume of scientific literature. Without SDI it would be impractical to obtain this information."

To use the service, librarians work closely with scientists in designing interest profiles related to a scientist's particular research project. The quality of the interest profiles determines feedback and their design requires a knowledge of and skill with the terminology used in a particular field. The library has on staff an SDI specialist for this purpose. The object is to retrieve maximum relevant information with as little irrelevant 'noise' as possible. Computer feedback or 'print out' relevancy has been as high as 91.3 per cent and as low as 10 per cent, depending largely upon the specific terminology of a particular field of interest. The Cell Biology Research Institute was the first to use this new service in CDA but most of the other research institutes and research services are either using it now or are in the process of subscribing to it.

Experience with SDI has suggested various benefits. One of these is the critical timing of an important reference. Dr. Madhosingh recently found that timing worked to his advantage in the communication of research results: "I obtained key information only a few days before presentation of a paper at an international conference. This information not only improved discussion in the paper but gave me the opportunity to assert our pre-eminence in a specialized field, since we were made aware of significantly new information."

Libraries, then, operate in an increasingly sophisticated world of user-oriented information storage and retrieval. They are at the center of the information explosion and feel the impact of change. Sensitive as they may be to all types of events around the world, it can be seen that when library telephones ring it is not always about mini-skirts. ■



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